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VITAL GAPS IN NEW YORK METROPOLITAN ARTERIES

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"Ever'thing comes t' him who waits
Except a loaned book."

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VITAL GAPS IN NEW YORK METROPOLITAN ARTERIES

NOVEMBER 11, 1940

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ROUTES OF THE FOUR PROPOSED PROJECTS TO FILL
VITAL GAPS IN NEW YORK METROPOLITAN ARTERIES

TRIBOROUGH BRIDGE AUTHORITY
RANDALL'S ISLAND
NEW YORK, N. Y.
TELEPHONE LEHIGH 4-5800

PAUL LOESER
GENERAL MANAGER AND SECRETARY

MEMBERS:
ROBERT MOSES, CHAIRMAN
GEORGE V. McLAUGHLIN, VICE-CHAIRMAN
RODERICK STEPHENS, VICE-CHAIRMAN

November 11, 1940

Hon. Fiorello H. LaGuardia
Mayor of the City of New York
City Hall
New York, N. Y.

Dear Sir:

At your request, I am submitting a program to aid national defense by filling vital gaps in the present system of New York metropolitan vehicular arteries.

Much has been said recently about military roads, particularly the autobahnen in Germany. German government engineers came to this country while studying preliminary plans for their autobahn system and we showed them what had been done here. I have examined the reports on the completed work and have the observation of engineers who have studied them abroad.

The engineering design principles used in the autobahn system were in a large measure copied from the work done in the New York area. They are express highways built to avoid the old roads which are congested by every-day travel. The most important lesson to be learned from them is not their sweeping curves and easy grades but the fundamental principle which dictated their location. While the network bypasses cities, outlets were provided from the centers of industrial and densely populated communities. The system went into the cores of cities and did not simply skim the edges.

There is a school of thought which holds that the outer edges of cities should be first connected by superhighways. An example of this is the so-called new Pennsylvania Turnpike, an express highway recently completed between Irwin about eleven miles outside of Pittsburgh and Middlesex about sixteen miles from Harrisburg. It is reported that another section is to be built to Philadelphia. The traffic which uses it must still find its way into these cities and wind its

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https://archive.org/details/vitalgapsinnewyo00trib

way through congested streets after it leaves the superhighway in the open country. The vitally necessary urban connections have not been constructed.

The emergency highway transportation problem is not to make travel on the open road more comfortable but to widen the bottlenecks in strategically located cities where motor travel on narrow and congested streets has increased faster than pavement and other traffic facilities to accommodate it.

Our arterial highways already built, under construction, or scheduled for early construction will meet normal demands, but we have learned from the European war that motor traffic arteries designed for peace-time use cannot absorb the added burden of mass military maneuvers and transportation of defense material by truck. The seven and one-third million people who live in New York and travel around in it, not to speak of those in the suburbs, cannot be evacuated during military defense movements. They must be fed and their food must be hauled over the roads within the City. If the streets are to be kept open for the inhabitants to survive, they cannot be commandeered for military use and defense transportation without disaster.

It is evident from the large-scale production of machines for military defense that emphasis is being placed upon motorized military equipment. If ponderous units of mobile war-machines must come into New York or move around within the City there are vital gaps in the arterial system which should be filled immediately as aids to the national defense.

These vital gaps would form links in the present traffic system and connect with arteries which were completed since the last war at a cost of more than half a billion dollars. The Holland and Lincoln Tunnels and George Washington and Staten Island bridges of the Port of New York Authority; and the Triborough, Henry Hudson, Whitestone, Marine and Cross Bay bridges of the Triborough Bridge Authority are part of this system. The west side of Manhattan is open for almost its full length and the East Side Highway has been far advanced. The Grand Central, Interboro and Whitestone parkways, and the Cross Island, Southern, and Shore parkways of the Belt System form a network in Queens and Brooklyn. The Henry

Hudson Parkway is a new link in the Bronx. Mixed traffic routes such as Grand Concourse Extension, Union Turnpike, the improvement of Queens Boulevard and many other street widening and express highway projects have been built or expanded to keep pace with increasing traffic loads. In Westchester, the Bronx River, Saw Mill River, Cross County and Hutchinson River parkways join the Eastern State Parkway leading into upper New York and the Merritt Parkway into Connecticut. The Northern, Southern, Wantagh, Jones Beach, Meadowbrook and Ocean parkways on Long Island fit into the system. Arterial highways in New Jersey place prime importance on the relief of traffic through congested communities.

Major traffic projects now under actual construction in the New York area include the Hutchinson River Parkway Extension through the Bronx, the widening and improvement of the Saw Mill River and Cross County parkways in Westchester County, the Gowanus Parkway, the Atlantic Avenue improvement and the Emmons Avenue bypass on the Belt System in Brooklyn, the reconstruction of Cross Bay Boulevard over Jamaica Bay, the connecting highways to the new 38th Street Tunnel and Rockaway improvement in Queens, and the extension of the East River Drive in Manhattan. The vehicular tunnel under the East River at 38th Street will be opened shortly and the new tunnel from the Battery to Brooklyn is under way.

Projects for which plans have been completed and which are scheduled to be constructed include Bronx River Parkway - Southerly Extension to Eastern Boulevard, Mosholu Parkway, and the further widening of Eastern Boulevard in the Bronx, the north end of the Queens Connecting Highway, and the extension of Francis Lewis Boulevard in Queens.

There are four vital gaps in the present network which should be filled immediately:

1. PELHAM-PORTCHESTER EXPRESS HIGHWAY

Construction of this route will relieve congestion on the Boston Post Road and the Hutchinson River Parkway, leading to New England. The Boston Post Road is the most congested mixed traffic route from New York City to the north and east and is located through the main business sections of the City of New Rochelle

and the Villages of Larchmont, Mamaroneck, Rye and Portchester. The Hutchinson River Parkway is the most over-crowded artery limited to pleasure vehicles in Westchester County.

The new route is approximately 15 miles long and parallels the New Haven Railroad. It joins the Boston Post Road at the Connecticut State line near the Merritt Parkway on the north and with Eastern Boulevard and the new Hutchinson River Parkway Extension which form corridors to the Triborough, Whitestone, and other bridges to the south.

The express highway for mixed traffic should be built for three lanes in each direction with grade crossings eliminated by 49 bridges and 5 viaducts.

More than 75% of the right-of-way has already been acquired by Westchester County, representing a cost of approximately $5,850,000. The additional land required is estimated at $1,900,000 in Westchester County and the right-of way in New York City lies wholely within Pelham Bay Park.

The cost of construction of this artery is estimated at $14,400,000.

2. BROOKLYN-QUEENS CONNECTING HIGHWAY

With the completion of through arteries under construction in Brooklyn and Queens, more traffic will be funneled into the Williamsburg and Manhattan Bridges than the streets tapping these bridge heads can carry. The present streets are narrow and congested with crossings at every block. The crazy-quilt pattern of the streets inherited from the villages which grew together to form the present borough adds to the difficulty of travel. The bottleneck at the Brooklyn approaches to the lower East River bridges can be relieved by constructing an artery from the Queens Connecting Highway and Meeker Avenue southerly by widening Union Avenue, running through the block between Penn and Rutledge Streets and widening Park Avenue. This will also provide an arterial connection to the highway and parkway system on Long Island and the northerly East River bridges. It will join the Borden Avenue connection to the 38th Street Tunnel in Queens. The route will pass the Brooklyn Navy Yard and feed the Brooklyn docks at one end and lead directly to LaGuardia Airport on the other.

This proposed artery should be built for six lanes of express traffic separated for most of its length from service roads by malls with the all but

principal intersecting streets closed to the main flow of traffic.

This project would require the acquisition of land assessed at approximately $7,000,000 and utilize City-owned property assessed at $345,000. It is estimated that construction will cost $5,100,000.

3. ELEVATED HIGHWAY ACROSS LOWER MANHATTAN

This proposed project consists of an elevated structure connecting the Williamsburg and Manhattan Bridges to the Holland Tunnel located in the interior of blocks along Canal Street. The ramps from the two bridges and the tunnel converge to form a double deck viaduct across lower Manhattan to provide uninterrupted flow of traffic across the most congested section of New York City. It is in the heart of the New York port and shipping district.

This proposed project would require the acquisition of land assessed at approximately $8,800,000 and use City-owned land assessed at $2,900,000. It can be constructed at an estimated cost of $10,300,000.

4. HARLEM RIVER DRIVE

This project provides a six lane highway from the Manhattan end of the Triborough Bridge and the north end of the East River Drive to the tunnels under Manhattan connecting with the George Washington Bridge. It skirts the waterfront of the Harlem River with access to intermediate river crossings. Provision is made for industrial development and service roads in the area along the river at proper locations. This route is the most practical means of providing traffic flow from the New England shore route across the Hudson River into Northern New Jersey. The cost of slashing a major artery across the Bronx easterly from the George Washington Bridge would be prohibitive.

It is estimated that the assessed valuation of land to be acquired for this project will amount to $5,800,000. City-owned land valued at $1,800,000 is planned to be used. The construction is estimated at $11,700,000.

The estimated cost of construction of the four proposed projects totals $41,500,000 and the projects require land acquisition estimated at $23,500,000.

The routes recommended are shown on the maps and exhibits attached to this report.

In preparing this program of vital gaps, we studied, of course, a connection between the Queens Midtown Tunnel and the Lincoln Tunnel across Manhattan. A tunnel connecting the two river tubes would cost too much, and it could not be completed in time to contribute to the solution of the present emergency. A route for an elevated highway which could be constructed at reasonable cost was found, but it is doubtful if it could be built in a year. Land acquisition would involve long negotiations with owners to obtain easements through valuable land and buildings. The project was left out of the recommended schedule for these reasons.

As the representative of the City serving on the Committee of State Highway Commissioners studying the so-called Boston to Washington superhighway, I have had excellent opportunity to coordinate the New York arterial system with the systems of the adjoining states of Connecticut and New Jersey.

We claim no originality for the projects recommended. The Pelham-Portchester Express Highway was laid down on the maps of Westchester County in 1925 as far south as the New York City line. The design of the connections to the Hutchinson River Parkway and Eastern Boulevard in New York City are original with us. The Brooklyn-Queens Connecting Highway is in its essential characteristics the plan developed by the Borough President's office in Brooklyn and we have suggested only changes in detail. The precise Elevated Highway route across lower Manhattan on the location shown is new. The Harlem River Drive was designed by the office of the Borough President of Manhattan with cooperation of the Park Department and Triborough Bridge Authority.

Construction on these four gaps can start immediately by distributing the responsibility for the engineering design and letting of contracts among the several agencies geared for the work. The New York State Department of Public Works through its district office responsible for State work in Westchester County should supervise construction of the Pelham-Portchester Express Highway outside of New York City. The New York City Park Department and Triborough Bridge Authority should assume the responsibility for the work in Pelham Bay Park in New York City. The Brooklyn-Queens Connecting Highway should be assigned to the Borough President of Brooklyn. The Canal Street Improvement and the Harlem River

Drive should be undertaken by the office of the Borough President of Manhattan with cooperation of the Park Department and Triborough Bridge Authority. All of this work can be completed in one year on a three shift design and construction basis under emergency orders, land acquisition being speeded up to fit into the period of design.

The present New York metropolitan arteries were financed from many sources. City, County, State and inter-state Authorities have issued bonds for much of the work. State and Federal funds for railroad grade crossing eliminations were used for highways as incidental improvements and at places where the arterial system met railroads. City and County appropriations were supplemented by State highway and parkway funds with Federal aid. Appropriations for units in the system ran from local borough assessment to substantial Federal subsidy.

Funds for the projects recommended should be provided from Federal appropriations for national defense on the assumption that a nation-wide program of this kind will be adopted.

The Borough Presidents of Brooklyn and Manhattan, a number of other City agencies and the Westchester County Park Commission cooperated in assembling data for this report. The staffs of the City and State park departments and of the Triborough Bridge Authority have been most helpful, and I wish to acknowledge particularly the services of Consulting Engineer W. Earle Andrews.

Very truly yours,

Robert Moses

Chairman

VITAL GAPS IN NEW YORK METROPOLITAN ARTERIES

VITAL GAPS IN NEW YORK METROPOLITAN ARTERIES

LEGEND

1. PELHAM – PORTCHESTER EXPRESS HIGHWAY.
2. BROOKLYN – QUEENS CONNECTING HIGHWAY.
3. ELEVATED HIGHWAY ACROSS LOWER MANHATTAN.
4. HARLEM RIVER DRIVE.

SCALE ONE INCH EQUALS ONE MILE

CONNECTICUT

PLEASANTVILLE

STAMFORD

GREENWICH

TARRYTOWN

PORTCHESTER

WHITE PLAINS

IRVINGTON

WESTCHESTER

ARDSLEY

SCARSDALE

RYE

DOBBS FERRY

MAMARONECK

HASTINGS

TUCKAHOE

BRONXVILLE

LARCHMONT

MOUNT VERNON

PELHAM

GLEN COVE

SEA CLIFF

PORT WASHINGTON

ROSLYN

GREAT NECK

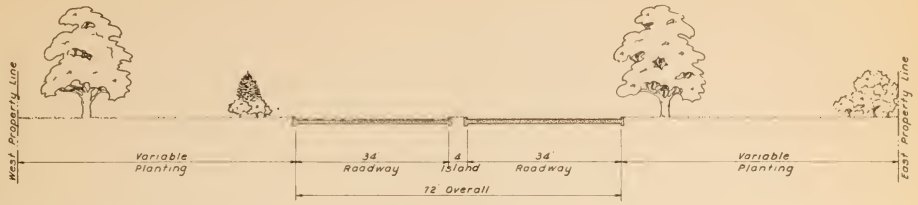
MINEOLA

1

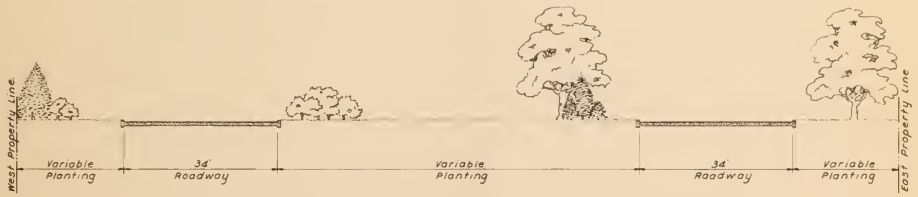
PART OF ROUTE OF PROPOSED PELHAM
PORTCHESTER EXPRESS HIGHWAY

FAIRCHILD AERIAL SURVEYS, INC.

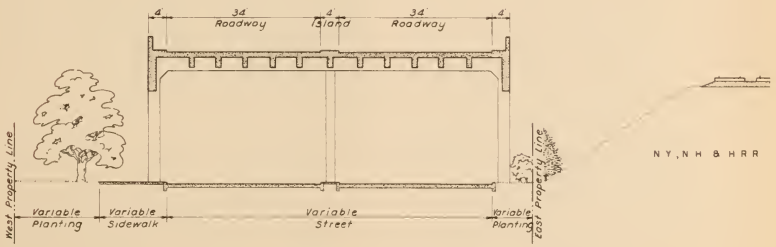
EASTCHESTER CREEK
EASTCHESTER BAY
PLAN OF PROPOSED
PELHAM - PORTCHESTER
EXPRESS HIGHWAY



SECTION WITH MINIMUM CENTER MALL



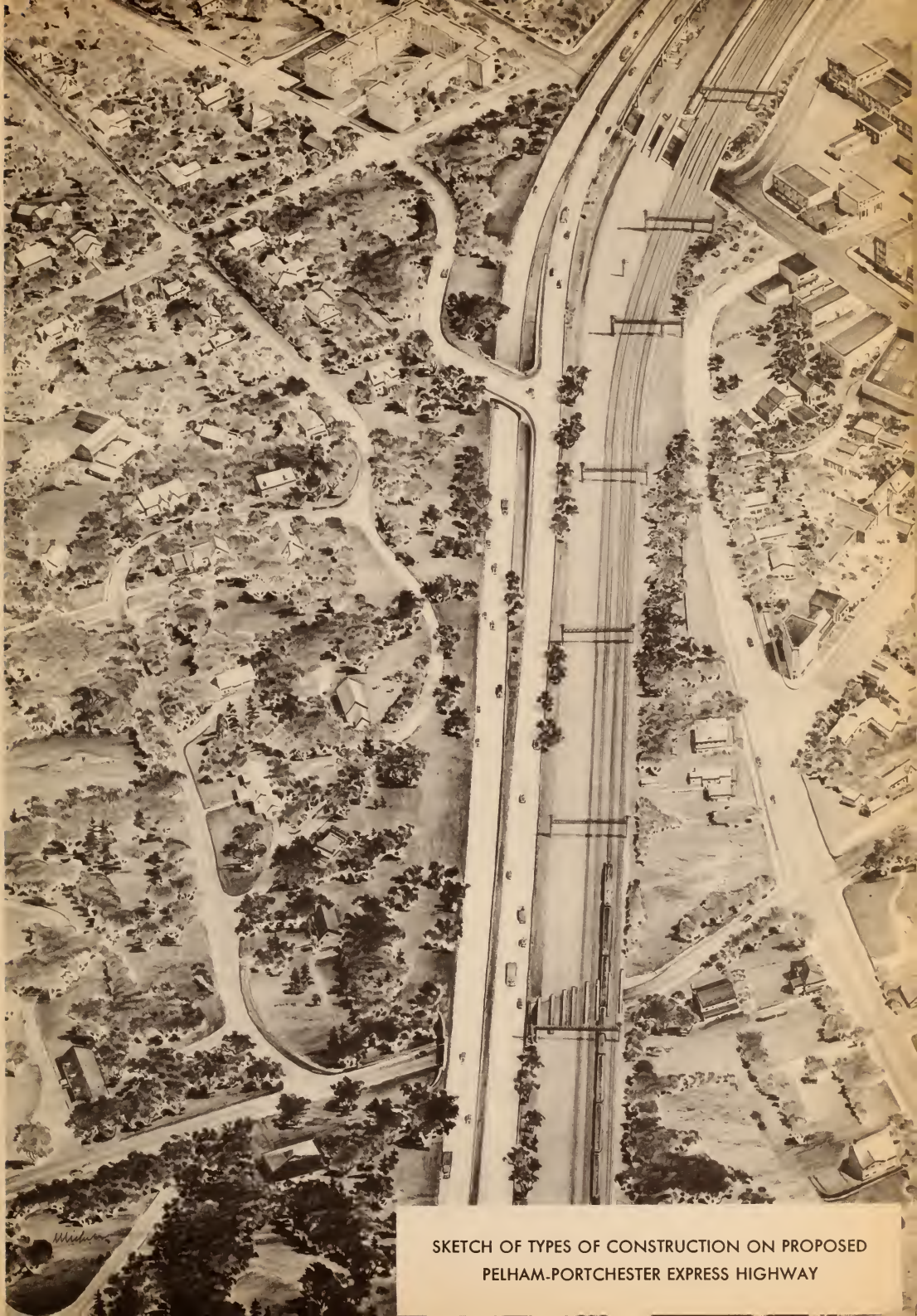
SECTION WITH VARIABLE CENTER MALL



SECTION AT VIADUCT

TYPICAL SECTIONS OF PROPOSED
PELHAM-PORTCHESTER EXPRESS HIGHWAY

0 10 20 30 40 50 60 70 80 90
SCALE IN FEET



SKETCH OF TYPES OF CONSTRUCTION ON PROPOSED
PELHAM-PORTCHESTER EXPRESS HIGHWAY

TRAFFIC ON THE PROPOSED PELHAM-PORTCHESTER EXPRESS HIGHWAY
WILL AVOID THIS CONGESTION ON FEDERAL ROUTE No.1 AT LARCHMONT

THE PROPOSED PARALLEL ROUTE WILL RELIEVE CONGESTION ON THE
BOSTON POST ROAD (FEDERAL ROUTE No. 1) AT NEW ROCHELLE

THE PROPOSED PELHAM-PORTCHESTER EXPRESS HIGHWAY WILL FURNISH ANOTHER ROUTE FOR THIS TRAFFIC ON THE BOSTON POST ROAD (U. S. ROUTE No. 1) AT RYE

THIS TRAFFIC ON THE BOSTON POST ROAD AT PORTCHESTER IS TYPICAL OF CONDITIONS THROUGH COMMUNITIES ON FEDERAL ROUTE No. 1 IN WESTCHESTER COUNTY

THE THROUGH TRAFFIC ON THE BOSTON POST ROAD AT THIS POINT WILL TRAVEL ON THE PROPOSED SIX-LANE PELHAM-PORTCHESTER EXPRESS HIGHWAY

THE FOUR-LANE HUTCHINSON RIVER PARKWAY APPROXIMATELY PARALLELS THE PROPOSED EXPRESS HIGHWAY BUT NO MORE LANES CAN BE ADDED

PART OF ROUTE OF PROPOSED BROOKLYN
QUEENS CONNECTING HIGHWAY

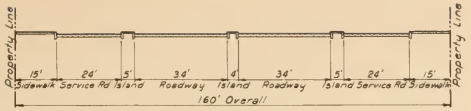
FAIRCHILD AERIAL SURVEYS, INC. N.Y.

PLAN OF PROPOSED BROOKLYN - QUEENS CONNECTING HIGHWAY

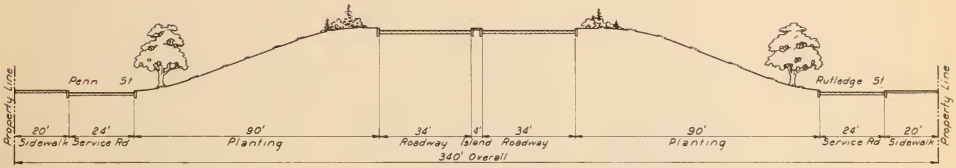
SCALE 0 500 1000 1500 2000 2500 IN FEET

GENERAL DESIGN FROM THE OFFICE OF THE BOROUGH PRESIDENT OF BROOKLYN

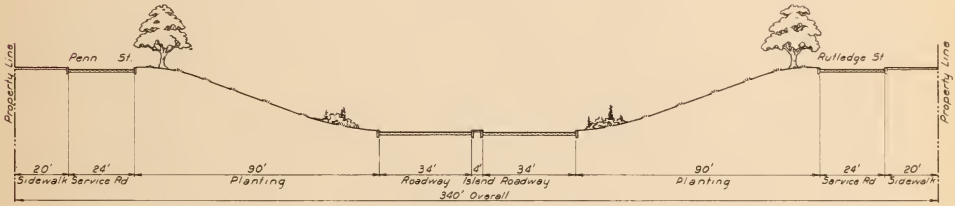
W. EARLE ANDREWS
ENGINEER NEW YORK



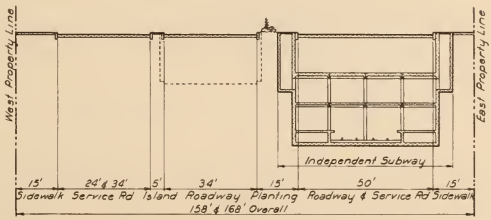
SECTION BETWEEN NAVY ST. AND RYERSON ST.



SECTION BETWEEN RYERSON ST. AND WYTHE AVE.



SECTION BETWEEN BEDFORD AVE. AND MONTROSE AVE.

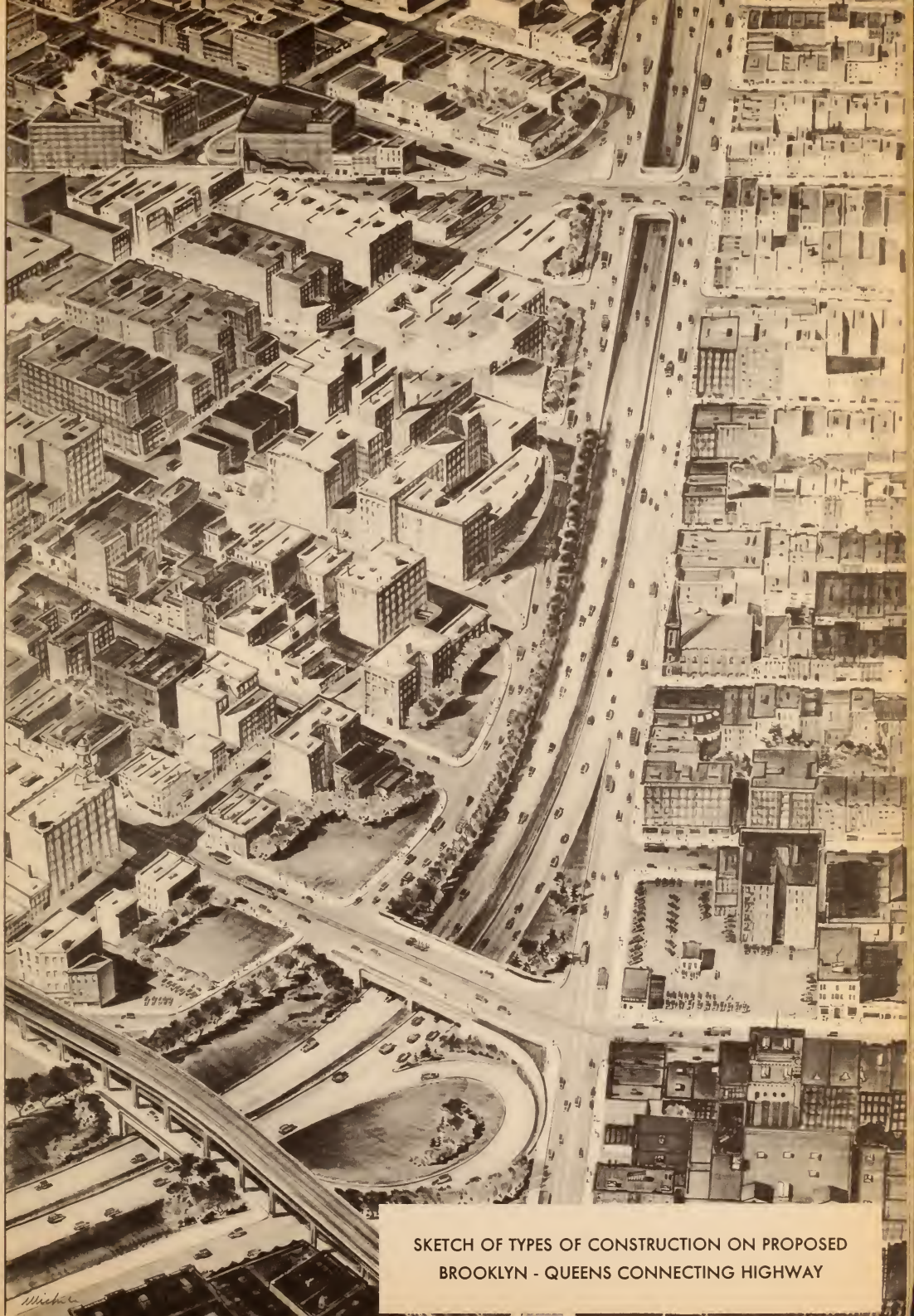


SECTION BETWEEN STAGG ST. AND DEVOE ST.

TYPICAL SECTIONS OF PROPOSED BROOKLYN-QUEENS CONNECTING HIGHWAY

SCALE IN FEET

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140



SKETCH OF TYPES OF CONSTRUCTION ON PROPOSED
BROOKLYN - QUEENS CONNECTING HIGHWAY

THE PROPOSED BROOKLYN - QUEENS CONNECTING HIGHWAY WILL FEED THE BROOKLYN AND MANHATTAN BRIDGES AT ITS SOUTH END

THE PROPOSED HIGHWAY WILL RUN INTO THE QUEENS CONNECTING HIGHWAY AT ITS NORTH END TO FORM A DIRECT ROUTE BETWEEN THE NAVY YARD SECTION OF BROOKLYN AND LA GUARDIA AIRPORT

THE PROPOSED BROOKLYN - QUEENS CONNECTING HIGHWAY WILL
TAP THE MANHATTAN BRIDGE APPROACH AT FLATBUSH AVENUE

THE PROPOSED HIGHWAY WILL CONNECT WITH WILLIAMSBURG
BRIDGE AT BROADWAY AND GRAND STREET EXTENSION APPROACHES

ROUTE OF PROPOSED ELEVATED HIGHWAY
ACROSS LOWER MANHATTAN

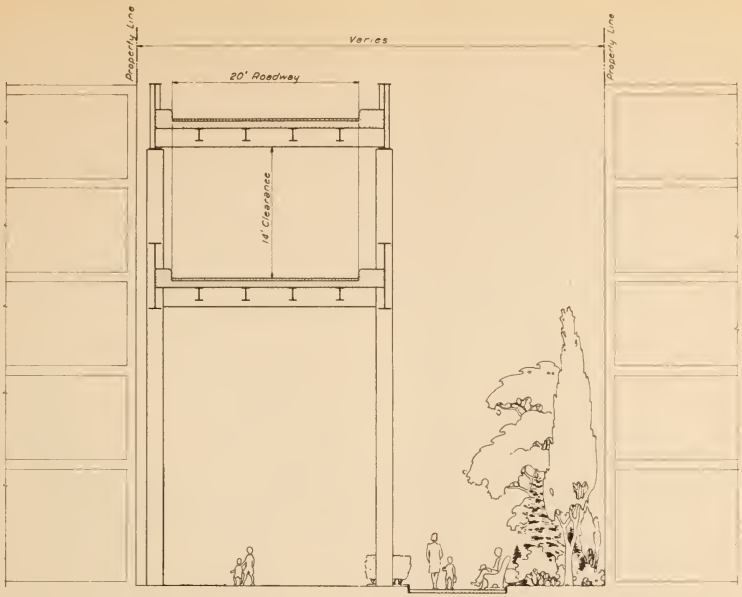
FAIRCHILD AERIAL SURVEYS, INC., N.Y.

PLAN OF PROPOSED ELEVATED HIGHWAY ACROSS LOWER MANHATTAN

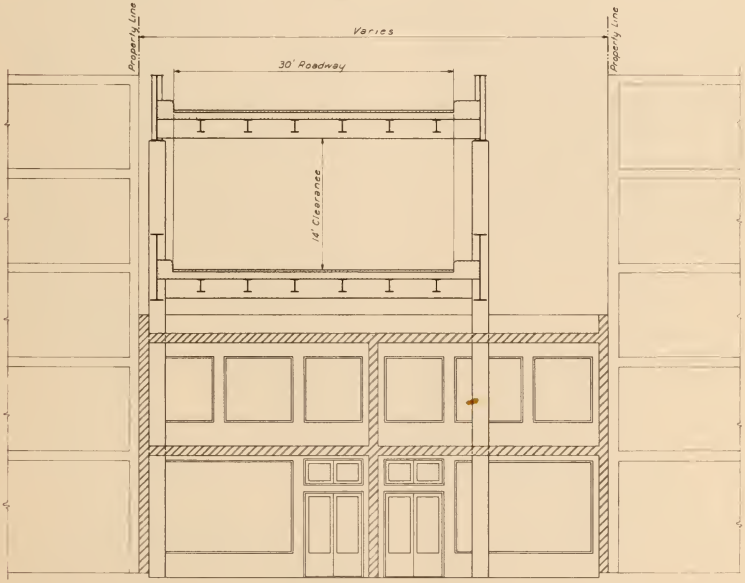
W EARLE ANDREWS
ENGINEER NEW YORK

SCALE IN FEET
0 500 1000 1500 2000 2500

BROOKLYN-QUEENS CONNECTING HIGHWAY



SECTION BETWEEN CHRYSTIE ST. AND LUDLOW ST.



SECTION BETWEEN BROADWAY AND MOTT ST.

TYPICAL SECTIONS OF PROPOSED ELEVATED HIGHWAY ACROSS LOWER MANHATTAN

0 10 20 30

SCALE IN FEET

SKETCH OF TYPES OF CONSTRUCTION ON PROPOSED
ELEVATED HIGHWAY ACROSS LOWER MANHATTAN

THE THROUGH TRAFFIC OF THE MANHATTAN BRIDGE WILL USE THE PROPOSED ELEVATED HIGHWAY ACROSS LOWER MANHATTAN AND AVOID THIS CROWDED APPROACH ON CANAL ST.

THE TRAFFIC OF THE HOLLAND TUNNEL WILL BE ROUTED IN ORDERLY CHANNELS AT THE CONNECTION WITH THE PROPOSED ELEVATED HIGHWAY

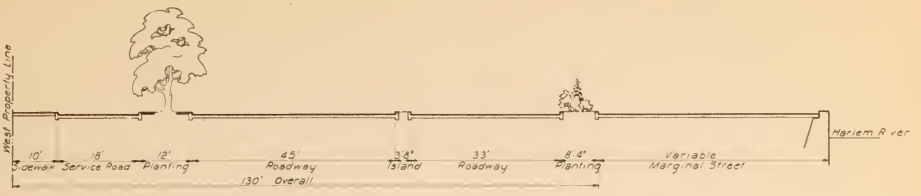
THE PROPOSED ELEVATED HIGHWAY ACROSS LOWER MANHATTAN WILL CONNECT WITH THE MANHATTAN BRIDGE WITHOUT USING THESE SURFACE STREETS

THE PROPOSED ELEVATED HIGHWAY WILL CONNECT WITH THE WILLIAMSBURG BRIDGE ACROSS THE RIVER BEFORE REACHING GRADE

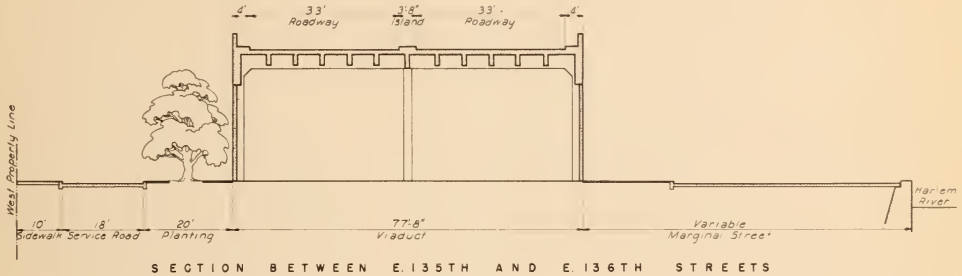
ROUTE OF PROPOSED HARLEM RIVER DRIVE

FAIRCHILD AERIAL SURVEYS, INC. N.Y.C.

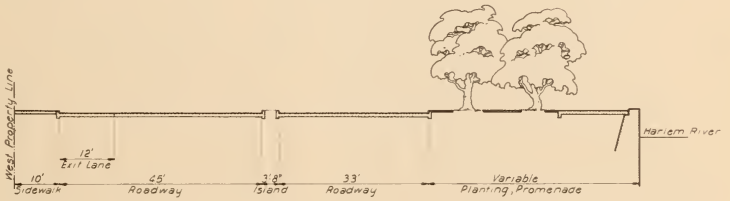
HARLEM RIVER
LITTLE HELL GATE
EAST RIVER
BRONX KILLS
HUDSON RIVER
HARLEM RIVER
MOUNT MORRIS PARK
THOMAS JEFFERSON PARK
COLLEGE OF THE CITY OF NEW YORK
ST NICHOLAS PARK
WARDS ISLAND
RANDALLS ISLAND
STADIUM
PARK
MARGINAL STREET
HARLEM RIVER DRIVE
WILLIS AVE BRIDGE
3RD AVE BRIDGE
PARK AVE VIADUCT
HARLEM RIVER
LENOX VALLEY OF THE
IRT YARDS
OLD MANHATTAN FIELD
POLO GROUNDS
BRONX EXTERIOR TERMINAL
MARKET
MACOMBS DAM
HIGH BRIDGE
WASHINGTON BRIDGE
RIVERSIDE PARK
GRANT PARK
E 135TH ST
E 162ND ST
JOYCE KILMER PARK
ST MARYS PARK
MORRIS BRANCH
CENTRAL RAILROAD
NEW YORK
HAVEN
BOSTON
SOUTHERN
BROOK
TRINITY
BROADWAY
COLDEN AVE
MACOMBS
BOSCOBEL
WEBSTER
JEROME
WALTON
GRAND CONCOURSE
RIVERSIDE DRIVE
HUDSON
WEST
FORT WASHINGTON AVE
PARKSIDE
EDGECOMBE
AMSTERDAM
CONVENT
ST NICHOLAS
EDGECOMBE
WADSWORTH
HIGH
BRIDGE
PARK
WASHINGTON
BRIDGE
PARK
PLAN OF PROPOSED
HARLEM RIVER DRIVE
SCALE IN FEET
ALL DESIGN NORTH OF THE TRIBOROUGH BRIDGE INTERSECTION
FROM THE OFFICE OF THE BOROUGH PRESIDENT OF MANHATTAN
W EARLE ANDREWS
ENGINEER NEW YORK



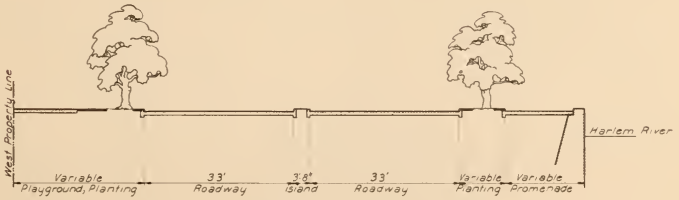
SECTION BETWEEN E.131ST AND E.132ND STREETS



SECTION BETWEEN E.135TH AND E.136TH STREETS



SECTION BETWEEN W.142ND AND W.143RD STREETS



SECTION BETWEEN W.151ST AND W.153RD STREETS

TYPICAL SECTIONS OF PROPOSED HARLEM RIVER DRIVE

SCALE 0 10 20 30 40 50 60 70 IN FEET

SKETCH OF TYPES OF CONSTRUCTION
ON PROPOSED HARLEM RIVER DRIVE

COASTWISE TRAFFIC THROUGH NEW YORK USES THIS SECTION OF FEDERAL ROUTE No. 1 AT FORDHAM ROAD AND JEROME AVENUE IN THE BRONX. IT CAN BE BYPASSED WHEN THE HARLEM RIVER DRIVE IS BUILT.

THIS SECTION OF FEDERAL ROUTE No. 1 AT FORDHAM ROAD AND WEBSTER AVENUE IN THE BRONX SHOWS ON HIGHWAY MAPS AS A THROUGH ROUTE. MOST OF THE EXISTING TRAFFIC IS LOCAL.

THIS SECTION OF FEDERAL ROUTE No. 1 IS ON FORDHAM ROAD. THE PROPOSED HARLEM RIVER DRIVE WILL FURNISH A FASTER ROUTE FOR TRAFFIC BETWEEN NEW ENGLAND AND THE GEORGE WASHINGTON BRIDGE

THIS SECTION OF FEDERAL ROUTE No. 1 IS ON FORDHAM ROAD. THROUGH TRAFFIC CAN BE ROUTED OVER THE PROPOSED HARLEM RIVER DRIVE TO AVOID THIS CONGESTION

NEW YORK
METROPOLITAN
ARTERIES
LEGEND
EXISTING ARTERIES.
ARTERIES UNDER CONSTRUCTION.
ARTERIES SCHEDULED FOR CONSTRUCTION.
VITAL GAPS.
SCALE OF MILES
1 0 1 2 3 4
LONG ISLAND SOUND
ATLANTIC OCEAN
JAMAICA BAY
HUDSON RIVER
HENRY HUDSON PARKWAY
SAW MILL RIVER PARKWAY
BRONX RIVER PARKWAY
CROSS COUNTY PKWY.
HUTCHINSON RIVER PARKWAY
MERRITT PARKWAY
BOSTON POST ROAD
PELHAM-PORTCHESTER EXPRESS HIGHWAY
G WASHINGTON BRIDGE
HARLEM RIVER DRIVE
TRIBOROUGH BRIDGE
EASTERN BLVD
WHITESTONE BRIDGE
CROSS ISLAND PARKWAY
NORTHERN STATE PARKWAY
WANTAGH STATE PARKWAY
BETHPAGE PARK
GRAND CENTRAL PARKWAY
INTERBOROUGH PKWY
SOUTHERN STATE PARKWAY
MEADOWBROOK STATE PARKWAY
SOUTHERN PARKWAY
MEEKER AVE
HOLLAND TUNNEL
CANAL ST
SHORE PARKWAY
JOYES BEACH

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

THE QUEENS APPROACH TO TRIBOROUGH BRIDGE

THE MANHATTAN APPROACH TO TRIBOROUGH BRIDGE

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

JUNCTION OF LOCAL TRAFFIC WITH ARTERIAL MOVEMENT
ON HENRY HUDSON PARKWAY IN MANHATTAN

INTERCHANGE BETWEEN TRAFFIC FROM MANHATTAN,
BRONX AND QUEENS ON TRIBOROUGH BRIDGE

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

APPROACH TO LINCOLN TUNNEL

APPROACH TO HENRY HUDSON BRIDGE

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

APPROACH TO GEORGE WASHINGTON BRIDGE TUNNEL UNDER MANHATTAN

DOUBLE DECKED SECTION OF EAST RIVER DRIVE IN MANHATTAN

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

JUNCTION OF LAURELTON, SOUTHERN STATE AND BELT PARKWAYS

FLUSHING APPROACH TO WHITESTONE PARKWAY

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

THE WHITESTONE BRIDGE OVER THE EAST RIVER WHERE IT JOINS LONG ISLAND SOUND

THE HENRY HUDSON BRIDGE JOINING MANHATTAN AND THE BRONX

TYPES OF PRESENT METROPOLITAN TRAFFIC ARTERIES

MERRITT PARKWAY

EASTERN STATE PARKWAY

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